

UNITED STATES DISTRICT COURT
WESTERN DISTRICT OF WASHINGTON
AT SEATTLE

NXP USA, INC., and NXP B.V.,

Plaintiffs,

v.

IMPINJ, INC.,

Defendant.

CASE NO. 2:20-cv-01503-JHC

REDACTED¹ ORDER RE: RENEWED
MOTION FOR SUMMARY JUDGMENT
AS TO THE '097 PATENT

Before the Court is Impinj's motion for summary judgment of non-infringement and invalidity as to U.S. Patent No. 7,374,097 (the '097 Patent). Dkt. ## 424, 430; *see also* Dkt. ## 449, 450 (reply brief). NXP opposes the motion. Dkt. ## 441, 443.

For the reasons below, the Court DENIES the motion.

I

BACKGROUND

A. The '097 Patent

Many RFID data carriers (tags) contain storage systems used to store information temporarily. These carriers can, for example, temporarily store an indication of successful

¹ The Court provisionally sealed its initial order. Dkt. # 506. After hearing from the parties about what material, if any, must remain sealed in the public version of the order (Dkt. # 511), the Court hereby publishes this redacted version of the order.

1 communication with a communication station. Dkt. # 137 at 21. The information is stored and
2 represented “by a value of an information voltage that arises at the capacitor.” ’097 Patent at
3 1:45–47. The ’097 Patent purports to solve a problem identified in the prior art: The information
4 voltage would continuously decline due to “unavoidable leakage currents in the circuit.” *Id.* at
5 1:62–2:1. This decline in voltage would lead to an “unsatisfactory situation” because the
6 information was “no longer able to be evaluated after only a short period of time.” *Id.* at 2:2–7.

7 The ’097 Patent describes an improved approach to storing information on a tag. The
8 invention described by the ’097 Patent provides “a substantially longer period of time during
9 which the stored information can be ascertained with high reliability.” ’097 Patent at 2:34–36.

10 The ’097 Patent discloses “information-voltage generating means” that produce an
11 “information voltage.” *Id.* at 1:1–18. Claim 1 (which is representative for present purposes)
12 describes a data carrier containing “information-voltage generating means that are arranged to
13 receive a control signal . . . and that are arranged to generate the information voltage by using the
14 control signal.” *Id.* at 8:66–9:3. The control signal “is of a voltage value that is at most equal to
15 the value of the supply voltage.” *Id.* at 9:1–2. Claim 1 also states that the data carrier is
16 “characterized in that the information-voltage generating means have voltage-raising means that
17 are arranged to raise the voltage value of the control signal.” *Id.* at 9:3–5.

18 The Court initially construed “voltage-raising means that are arranged to raise the voltage
19 value of the control signal” as a means-plus-function term subject to section 112, ¶ 6. Dkt. # 247
20 at 33–39. The Court stated that the function was “raising the voltage value of the control signal,”
21 and the corresponding structure was “a charge pump or the float-based structure described at
22 2:43–48 of the ’097 Patent” and equivalents thereof. *Id.* But the Court modified that
23 construction in a subsequent order. Dkt. # 375. The Court modified its construction to hold that
24 the term is not subject to section 112, ¶ 6, and that the term should be construed to mean “a

1 circuit that raises the voltage value of the control signal.” *Id.* at 8–9. Based on that construction,
2 the Court denied Impinj’s motion for summary judgment of non-infringement, concluding that a
3 reasonable jury could concluded that the “level shifter” within the accused products could satisfy
4 the claim element. Dkt. # 414 at 34–35.

5 In light of the Court’s modification to it construction, the Court granted Impinj an
6 opportunity to file a renewed motion for summary judgment. Dkt. # 416. After the parties
7 submitted their initial briefs, the Court requested supplemental briefs addressing several
8 questions. Dkt. # 476. The parties timely provided those briefs. Dkt. ## 485, 487.

9 II

10 LEGAL STANDARDS

11 “Summary judgment is appropriate when the moving party demonstrates that ‘there is no
12 genuine dispute as to any material fact and the movant is entitled to judgment as a matter of
13 law.’” *Spigen Korea Co. v. Ultraproof, Inc.*, 955 F.3d 1379, 1383 (Fed. Cir. 2020) (quoting Fed.
14 R. Civ. P. 56(a)). A genuine dispute exists “if the evidence is such that a reasonable jury could
15 return a verdict for the nonmoving party.” *Anderson v. Liberty Lobby, Inc.*, 477 U.S. 242, 248
16 (1986). In evaluating a motion for summary judgment, “[t]he court must afford all reasonable
17 inferences and construe the evidence in the light most favorable to the non-moving party.” *Vita-*
18 *Mix Corp. v. Basic Holding, Inc.*, 581 F.3d 1317, 1323 (Fed. Cir. 2009) (citing *Anderson*, 477
19 U.S. at 255). “[S]ummary judgment is appropriate only if there is no genuine issue of material
20 fact. *See* Fed. R. Civ. P. 56(c). To this end, the court must draw all reasonable factual inferences
21 in favor of the nonmovant.” *Johnson Worldwide Assocs., Inc. v. Zebco Corp.*, 175 F.3d 985, 988
22 (Fed. Cir. 1999).

23 Infringement (or non-infringement) can be decided at summary judgment when there are
24 no genuine disputes of fact. To prove infringement, the patentee “must establish by a

preponderance of the evidence that one or more claims . . . read on the accused device[s].” *Cross Med. Prod., Inc. v. Medtronic Sofamore Danek, Inc.*, 424 F.3d 1293, 1310 (Fed. Cir. 2005). “Where the parties do not dispute any relevant facts regarding the accused product . . ., but disagree over possible claim interpretations, the question of literal infringement collapses into claim construction and is amenable to summary judgment.” *Gen. Mills, Inc. v. Hunt-Wesson, Inc.*, 103 F.3d 978, 983 (Fed. Cir. 1997). Infringement is “properly decided upon summary judgment when no reasonable jury could find that every limitation recited in the properly construed claim either is or is not found in the accused device either literally or under the doctrine of equivalents.” *Gart v. Logitech, Inc.*, 254 F.3d 1334, 1339 (Fed. Cir. 2001).

Similarly, patent validity can be decided at summary judgment when there is no genuine dispute of fact. “Under the patent statutes, a patent enjoys a presumption of validity, which can be overcome only through clear and convincing evidence.” *Eli Lilly & Co. v. Barr Labs., Inc.*, 251 F.3d 955, 962 (Fed. Cir. 2001). Accordingly,

a moving party seeking to *invalidate* a patent at summary judgment must submit such clear and convincing evidence of invalidity so that no reasonable jury could find otherwise. Alternatively, a moving party seeking to have a patent held *not invalid* at summary judgment must show that the nonmoving party, who bears the burden of proof at trial, failed to produce clear and convincing evidence on an essential element of a defense upon which a reasonable jury could invalidate the patent.

Id. (emphasis added).

III

DISCUSSION

Impinj renews its motion for summary judgment as to the '097 Patent on both non-infringement and invalidity grounds. Dkt. ## 424, 430. The Court discusses each in turn.

A. Non-Infringement

Impinj moves for summary judgment of non-infringement. Dkt. # 430 at 6–10.

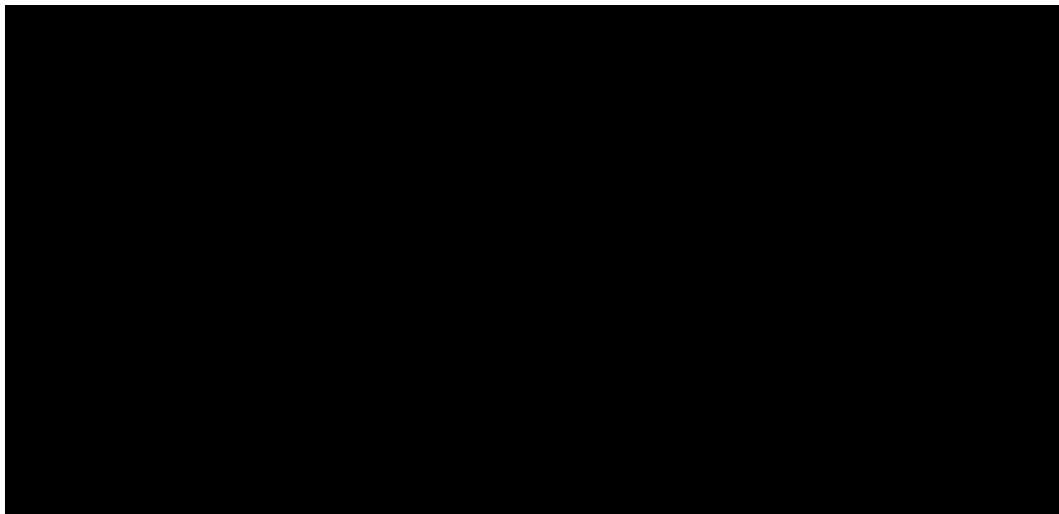
1 First, Impinj argues that the “voltage-raising means” limitation requires a voltage-raising
2 circuit that is capable of raising the voltage of the control signal *above* the supply voltage. Dkt.
3 ## 430 at 6–8, 450 at 2–3. This, Impinj says, is implied through the claim language. Claim 1 of
4 the ’097 Patent states that the control signal “is of a voltage value that is at most equal to the
5 value of the supply voltage.” ’097 Patent at 9:1–2. The claim requires that the “voltage-raising
6 means” be “arranged to raise the voltage value of the control signal.” *Id.* at 9:5–6. If the
7 voltage-raising means can be equal to the supply voltage (“at most equal to”), it follows, Impinj
8 says, that the voltage-raising means must be capable of raising the voltage value above the
9 control signal—otherwise, the “voltage-raising means” would not be able to do any voltage-
10 raising. Impinj also points to the specification, in which, in at least some embodiments, the
11 control signal is raised to a voltage above the supply voltage. *See, e.g.*, ’097 Patent at 2:50–51
12 (describing a “voltage raising means” that are implemented to “raise the voltage value of the
13 control signal *by* the value of the supply voltage” (emphasis added)); *id.* at 7:23–25 (“[T]he value
14 of the voltage of the control signal CS is raised by means of the voltage raising means 8 to *twice*
15 the value of the supply voltage V.” (emphasis added)).

16 Impinj says that in the accused products, the [REDACTED] cannot raise the voltage of the
17 control signal above the supply voltage or above any of its inputs, and therefore that the accused
18 products do not infringe.

19 Impinj’s theory would be correct for a product that does, in fact, have a control signal
20 roughly “equal to” the supply voltage. In such a product, if the voltage-raising means could not
21 raise the voltage above the supply voltage, then there could be no voltage raising, and thus no
22 infringement. But it does not follow that the voltage-raising means must always be capable of
23 raising the voltage above the supply voltage, regardless of the control-signal voltage—the claim
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1 language does not require that. The claim requires only that a voltage-raising circuit actually
2 raise the control voltage using the supply voltage.

3 *Second*, Impinj argues that the [REDACTED] in the accused products does not actually raise
4 the *control signal*. Dkt. # 430 at 8–10. NXP identified the [REDACTED] signal in the accused
5 products as the control signal. But Impinj says that the [REDACTED] is not fed into the [REDACTED], and
6 thus the [REDACTED] does not raise the [REDACTED] signal’s voltage. Instead, [REDACTED] other signals are fed
7 into the [REDACTED]. Impinj says that while “the [REDACTED] signal is an input to the overall process, it
8 is not a direct input to the [REDACTED], and its voltage is not raised by the [REDACTED].” Dkt.
9 # 430 at 9. A labeled schematic is provided below:



17 Dkt. # 295-6 at 119.

18 As the Court understands it,² this seems to be a labeling issue. As NXP puts it, the [REDACTED]
19 signal “flows through the digital logic cells” to the [REDACTED]. Dkt. # 443 at 9. Impinj’s
20 product documentation appears to label the signal differently as it proceeds through each stage.
21 For example, after the [REDACTED] signal goes through the [REDACTED], it is labeled [REDACTED] after the
22
23

24 ² The Court found the briefing on this issue from both parties to be rather unclear.

1 [REDACTED] goes through the [REDACTED], it is labeled [REDACTED]. Accordingly, it appears that the [REDACTED]
2 signal—as modified during certain steps along the way—is an input to the [REDACTED].

3 The Court therefore finds that there remain disputes of fact as to whether the accused
4 [REDACTED] satisfies the claim limitation.

5 B. Invalidity

6 Impinj moves for summary judgment of invalidity. Dkt. # 430 at 10–18. It argues that
7 claims 1, 3, 4, 6, and 7 of the '097 Patent are invalid as obvious in light of two pieces of prior art:
8 Oowaki (U.S. Patent No. 5,499,209) and Vega '809 (U.S. Patent No. 6,879,809). *Id.* Though
9 this presents a somewhat close question, the Court denies Impinj's motion.

10 Impinj says that several claims in the '097 Patent are invalid as obvious in light of
11 Oowaki and Vega '809. Dkt. # 430 at 10–18. According to Impinj, Oowaki discloses almost all
12 elements of the '097 Patent—including the requirement that a control signal be raised by
13 “voltage-raising” means. *Id.* at 11. And while Oowaki does not describe “a data carrier” that
14 “receive[s] a signal in a non-contacting manner” to “generate a supply voltage for parts of the
15 circuit,” Impinj says that Vega '809 discloses that element. *Id.* NXP disagrees, stating that there
16 are disputes of fact that preclude summary judgment of obviousness. Dkt. # 443 at 9–18.

17 The Court concludes that questions of fact preclude summary judgment of obviousness.
18 On a motion for summary judgment, the Court must draw all reasonable inferences in the non-
19 movant's favor. *See Anderson*, 477 U.S. at 255. Moreover, patents are presumed valid, and a
20 challenger to a patent's validity must demonstrate invalidity with clear and convincing evidence.
21 *See Takeda Chem. Indus., Ltd. v. Alphapharm Pty., Ltd.*, 492 F.3d 1350, 1355 (Fed. Cir. 2007);
22 *St. Jude Med., Inc. v. Access Closure, Inc.*, 729 F.3d 1369, 1381–82 (Fed. Cir. 2013). For the
23 reasons in NXP's briefing (Dkt. # 443 at 9–15), NXP has shown that there are questions of fact,
24 at least as to the scope of the prior art and the motivation to combine. *See Apple Inc. v. Samsung*

1 *Elecs. Co.*, 839 F.3d 1034, 1047 (Fed. Cir. 2016) (en banc) (obviousness is a legal determination
2 based on underlying facts); *Chemours Co. FC, LLC v. Daikin Indus., Ltd.*, 4 F.4th 1370, 1374
3 (Fed. Cir. 2021) (“What the prior art teaches, whether a person of ordinary skill in the art would
4 have been motivated to combine references, and whether a reference teaches away from the
5 claimed invention are questions of fact.” (quoting *Meiresonne v. Google, Inc.*, 849 F.3d 1379,
6 1382 (Fed. Cir. 2017))). For example, a reasonable jury could rely on the testimony of the ’097
7 Patent’s inventor, Mr. Bergler, and NXP’s expert, Dr. Madisetti, to conclude that a POSITA
8 would not be motivated to combine Oowaki’s DRAM memory solution with the RFID
9 technology described in Vega ’809. *See, e.g.*, Dkt. # 442-4 at 4 (Bergler testimony that DRAM
10 memory is “useless in the whole sense of this invention because the DRAM needs refresh cycles,
11 needs controller beside, needs everything, and this is not feasible for this kind of application.”);
12 Dkt. # 442-3 at 22–30 (Dr. Madisetti’s supplemental report).

13 This is not to say that the Court is without its concerns about the patent’s validity. The
14 ’097 Patent purports to solve a problem identified in the prior art in which the “information
15 voltage” is too low, which means that the information represented by the information voltage
16 was accessible only for a short time. ’097 Patent at 1:62–2:1, 2:2–7. The solution offered by the
17 ’097 Patent is to include a “voltage-raising means” in the circuit to raise the control signal, which
18 in turn allows the information voltage to “assume substantially the value of the supply voltage.”
19 *Id.* at 2:26–27. There is a certain sense of obviousness to this solution. *Cf. KSR Int’l Co. v.*
20 *Teleflex Inc.*, 550 U.S. 398, 416 (2007) (“The combination of familiar elements according to
21 known methods is likely to be obvious when it does no more than yield predictable results.”).

22 But the Court nevertheless concludes that at this juncture, there are factual questions that
23 a jury must decide. Viewing the evidence and all reasonable inferences therefrom in the light
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1 most favorable to NXP, Impinj has not overcome the presumption of validity with clear and
2 convincing evidence. So, the Court denies the motion as to invalidity.

3 **III**

4 **CONCLUSION**

5 For the reasons above, the Court DENIES Impinj's renewed motion for summary
6 judgment. Dkt. ## 424, 430.

7 Dated this 28th day of May, 2023.

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John H. Chun
United States District Judge